

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:)	Examiner: To be Assigned
Jian ZHANG, et al.)	Art Unit: To be Assigned
Application Serial No. To be Assigned)	Parent Serial No. 09/728,309
Filed: Herewith)	Parent Filed: November 30, 2000
For: HUMAN VNO RECEPTOR (R1))	Attorney's Docket No. 18136-1050 C1
)	Customer No. 25213

EXPRESS MAIL LABEL NO. EL 976 543 151 US
Date Mailed: OCTOBER 29, 2003

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents -- Mail Stop Patent Application
P.O. Box 1450
Alexandria, Virginia 22313-1450

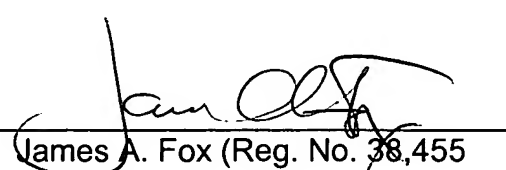
Dear Sir:

Applicants wish to bring to the attention of the Patent Office the references listed on the attached Form PTO-1449 and request that they be considered by the Examiner. Each of the references listed on the attached Form PTO-1449, was previously cited by or submitted to the PTO in prior Application Serial No. 09/728,309, filed November 30, 2000, therefore copies are not enclosed.

This Information Disclosure Statement is being filed under 37 C.F.R. §1.97(b)(3), therefore no fee is due. The Commissioner is authorized to charge any fees which may be required under 37 CFR §1.16 or §1.17, to Deposit Account No. 08-1641, referencing Attorney's Docket No. 18136-1050 C1.

Respectfully submitted,

Date: October 29, 2003

By: 
James A. Fox (Reg. No. 38,455)

HELLER EHRMAN WHITE & McAULIFFE LLP
275 Middlefield Road
Menlo Park, California 94025-3506
Direct Dial: (650) 324-6951
Telephone: (650) 324-7000
Facsimile: (650) 324-0638

Form PTO-1449 INFORMATION DISCLOSURE STATEMENT				Attorney's Docket No. 18136-1050 C1		Application Serial No. To be Assigned	
(use several sheets if necessary)				Applicant(s) Jian ZHANG, et al.			
				Filing Date: Herewith		Group Art Unit: To be Assigned	

U.S. PATENT DOCUMENTS							
Examiner Initials	Ref. No.	Date	Document No.	Name	Class	Subclass	Filing Date (if appropriate)
	*1.	04/1999	5,891,636	Van Gelder	435	6	
	*2.	11/1999	5,994,623	Broglie, et al.	800	278	
	*3.	01/1999	5,858,731	Sorge, et al.	435	91.1	

FOREIGN PATENT DOCUMENTS								
Examiner Initials	Ref. No.	Date	Document No.	Country	Class	Subclass	Translation	
							YES	NO
	*4.	04/2001	WO 01/25431	PCT				
	*5.	04/1997	WO 97/14790	PCT				
	*6.	01/1999	WO 99/00422	PCT				
	*7.	05/2001	1 096 008 A2	EPO				
	*8.	03/02	WO 02 24726 A	PCT				

OTHER DOCUMENTS		
(including author, title, date, pertinent pages, etc.)		
Examiner Initials	Ref. No.	Title
	*9.	Alexander, H., "Altering the Antigenicity of Proteins," <i>Proc. Natl. Acad. Sci. USA</i> - 89:3352-3356 (1992)
	*10.	Axel, "The Molecular Logic of Smell", <i>Scientific American</i> - pp. 154-159 (1995)
	*11.	Barinaga, "Salmon Follow Watery Odors Home", <i>Science</i> - 286:705-706 (1999)
	*12.	Berliner, D. L., " Steroidal Substances Active in the Human Vomeronasal Organ Affect Hypothalamic Function", <i>J. Steroid Biochem Molec Biol</i> - 58:1-2 (1996)
	*13.	Berliner, D. L., L. Monti-Bloch, C. Jennings-White and V. Diaz-Sanchez.. <i>J Steroid Biochem, Molec Biol</i> - 58:259-265 (1996)
	*14.	Bowie, J.U., et al., "Deciphering the Message in Protein Sequences: Tolerance to Amino Acid Substitutions", <i>Science</i> 247:1306-1310 (1990)
	*15.	Broadwell, R. D., " Olfactory Relationships of the Telencephalon and Diencephalon in the Rabbit", <i>J Comp Neurol</i> 163:329-346 (1975)
	*16.	Cao, Y., B. C. Oh, and L. Stryer, "Clonimg and localization of two multigene receptor families in goldfish olfactory epithelium", <i>Proc Natl Acad Sci USA</i> - 95:11987-11992 (1998)
	*17.	Dulac, et al, "A novel family of genes encoding putative pheromone receptors in mammals", <i>Cell</i> - 83(2):195-206 XP002156990 (1995) United States
	*18.	Dulasc, C., "Sensory coding of Pheromone Signals in Mammals," <i>Current Opinion in Neurobiology</i> 10 - 10:511-518 (2000)
	*19.	Gaafar, H, A, A. A. Tantawy, A. A. Melis, D. M. Hennawy and H. M. Shehata, "The Vomeronasal (Jacobson's) Organ in Adult Humans: Frequency of Occurrence and Enzymatic Study", <i>Acta Otolaryngol</i> - 118:408-412 (1998)

EXAMINER:	DATE CONSIDERED:
EXAMINER: Initial if citation considered, whether or not the citation conforms with MPEP 609. Draw a line through the citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.	
*If an asterisk is placed beside the reference number, a copy is not provided because the reference was previously cited by or submitted to the PTO in a prior application that is identical in the statement and relied upon for an earlier filing date under 35 U.S.C. §120. 37 C.F.R. §1.98 (d).	

Form PTO-1449		Attorney's Docket No. 18136-1050 C1	Application Serial No. To be Assigned
INFORMATION DISCLOSURE STATEMENT		Applicant(s) Jian ZHANG, et al.	
(use several sheets if necessary)		Filing Date: Herewith	Group Art Unit: To be Assigned
OTHER DOCUMENTS (including author, title, date, pertinent pages, etc.)			
*20.	Grosser et al., "Behavioral and electrophysiological effects of androstadienone, a human pheromone", <i>Psychoneuroendocrinology</i> - 25:289-299 (2000).		
*21.	Gruber, et al., "Construction of SuperScript Human cDNA Libraries", <i>Focus</i> - 17(2) 43-44		
*22.	Herrada, et al., "A novel family of putative pheromone receptors in mammals with a topographically organized and sexually dimorphic distribution", <i>Cell</i> - 90(4):763-773 XP002913897 (1997), United States.		
*23.	Jacob, "Human Pheromones", <i>The Physiology of Taste, Hormones & Behavior</i> - 37:57-78 (2000)		
*24.	Kallmann, F., W. A. Schoenfeld and S. E. Barrera., "The Genetic Aspects of Primary Eunuchoidism", <i>Am J Ment Defic</i> 48:203-236 (1943)		
*25.	Kel, A., A. Ptitsyn V. Babenko, S. Meier-Ewert, and H. Lebrach. "A genetic algorithm for designing gene family-specific oligonucleotide sets used for hybridization: the G protein-coupled receptor protein superfamily", <i>Bioinformatics</i> - 14:259-270 (1998)		
*26.	Keverne, et al, "The vomeronasal organ", <i>Science, American Association For The Advancement Of Science, U.S.</i> - 286(5440):716-720 XP002157783 (1999) ISSN: 0036-8075.		
*27.	Kevetter et al, "Connection of the Corticomedial Amygdala in the Golden Hamster. I. Efferents of the Vomeronasal Amygdala", <i>J of Comparative Neurology</i> - 197:81-89 (1991)		
*28.	Krieger, et al., "Olfactory Reception in Invertebrates", <i>Science</i> - 286:720-723 (1999)		
*29.	Krieger, J. et al., "Selective Activation of G Protein Subtypes in the Vomeronasal Organ upon Stimulation with Urin-derived Compounds", <i>J Biol Chem</i> - 274:4656-4662 (1999)		
*30.	Laurent, "A Systems Perspective On Early Olfactory Coding", <i>Science</i> - 286:723-728 (1999)		
*31.	Luscher, M. et al., "Pheromones": a New Term for a Class of Biologically Active Substances", <i>Nature</i> - 18:55-56 (1959)		
*32.	Malakoff, "Following The Scent Of Avian Olfaction", <i>Science</i> - 286:704-705 (1999)		
*33.	Matsunami, H. et al., "A Multigene Family Encoding a diverse Array of Putative Pheromone Receptors in Mammals", <i>Cell</i> - 90:775-784 (1997)		
*34.	Meredith, M., "Sensory Physiology of Pheromone Communication", (Vandenbergh, ed.), <i>Academic Press</i> - pp. 199-252 (1983)		
*35.	Mombaerts, "Seven-Transmembrane Proteins as Odorant and Chemosensory Receptors", <i>Science</i> - 286:707-711 (1999)		
*36.	Monti-Bloch, L., "The Functionality of The Human Vomeronasal Organ: Influenced On Gonadotropin and Testosterone Plasma Level, and Autonomic Reflexes", <i>Chemical Senses</i> - 22:752 (1997)		
*37.	Monti-Bloch, L. et al., "Effect of Putative Pheromones on the Electrical Activity of the Human Vomeronasal Organ and Olfactory Epithelium", <i>J. Steroid Biochem. Molec. Biol.</i> - 39:573-582 (1991)		
*38.	Monti-Bloch et al., "Modulation of Serum Testosterone and Autonomic Function through Stimulation of the Male Human Vomeronasal Organ (VNO) with Pregna-4,20-diene-3,6-dione", <i>J. Steroid Biochem. Molec. Biol.</i> - 65:237-242 (1998)		
*39.	Monti-Bloch, "The Human Vomeronasal System", <i>Ann. N.Y. Acad. Sci.</i> - 855:373-389 (1998)		
*40.	Monti-Bloch et al., "The Human Vomeronasal System" <i>Psychoneuroendocrinology</i> - 19:673-686 (1994)		

EXAMINER:

DATE CONSIDERED:

EXAMINER: Initial if citation considered, whether or not the citation conforms with MPEP 609. Draw a line through the citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.

*If an asterisk is placed beside the reference number, a copy is not provided because the reference was previously cited by or submitted to the PTO in a prior application that is identical in the statement and relied upon for an earlier filing date under 35 U.S.C. §120. 37 C.F.R. §1.98 (d).

Form PTO-1449		Attorney's Docket No. 18136-1050 C1	Application Serial No. To be Assigned
INFORMATION DISCLOSURE STATEMENT		Applicant(s) Jian ZHANG, et al.	
(use several sheets if necessary)		Filing Date: Herewith	Group Art Unit: To be Assigned
OTHER DOCUMENTS (including author, title, date, pertinent pages, etc.)			
*41.	Moran et al., "The Vomeronasal (Jacobson's) Organ in Man: Ultrastructure and Frequency of Occurrence", <i>J Steroid Biochem Molec Biol</i> - 39:545-552 (1991)		
*42.	Mori, et al., "The Olfactory Bulb: Coding and Processing Of Odor Molecule Information", <i>Science</i> - 286:711-715 (1999)		
*43.	Quinton, "Gonadotropin-Releasing Hormone Immunoreactivity in the Nasal Epithelia of Adults with Kallmann's Syndrome and Isolated Hypogonadotropic Hypogonadism and in the Early Midtrimester Human Fetus, The <i>Journal of Clinical Endocrinology & Metabolism</i> - 82(1):309-314 (1997), ISSN: 0021-972X		
*44.	Pantages et al., "A Novel Family of Cadidiate Pheomone Receptors in Mammals", <i>Neuron</i> - 28:835-845 (2000)		
*45.	Rodriguez, et al., "A putative pheromone receptor gene expressed in human olfactory mucosa", <i>Nature Genetics</i> , <i>Nature America</i> , New York, U.S., vol. 26, September 2000 (2000-09), pp. 18-19, XP002157781, ISSN: 1061-4036.		
*46.	Ryba et al., "A new multigene family of puntative pheromone receptor", <i>Neuron</i> - 19:371-379 (1997)		
*47.	Saito, H., et al., "Isolation of Mouse Vomeronasal Receptor Genes and Their Co-Localization With Specific G-Protein Messenger RNAs", <i>Molecular Brain Research</i> - 60:215-227 (1998)		
*48.	Schaeren-Wiemers et al., "A single protocol to detect transcripts of various types and expression levels in neural tissue and cultured cells: in situ hybridization using digoxigenin-labelled cRNA probes", <i>Histochemistry</i> - 100:431-440 (1993)		
*49.	Simon et al., "Diversity of G Proteins in Signal Transduction", <i>Science</i> - 252:802-808 (1991)		
*50.	Simms, et al., "TRLzol: A New Reagent for Optimal Single-Step Isolation of RNA", <i>Focus</i> - 15(4):99-102		
*51.	Smith et al., "Searching for the Vomeronasal Organ of Adult Humans: Preliminary Findings on Location Structure, an Size", <i>Micro Res Tech</i> - 41:483-491 (1998)		
*52.	Sobel et al., "Blind smell: brain activation induced by an undetected air-borne chemical", <i>Brain</i> - 122:209-217 (1999)		
*53.	Stern et al., "Making Sense of Scents", <i>Science</i> - 286:703 (1999)		
*54.	Stern et al., "Regulation of ovulation by human pheromones", <i>Nature</i> - 392:177-179 (1998)		
*55.	Takami et al., "Are Humans Equipped to Detect Pheromones?" 1993, <i>Neuroreport</i> - 4:375-378 (1993)		
*56.	Velasco, G., et al, "Nose Surgery and the Vomeronasal Organ", <i>Aesthetic Plastic Surgery</i> - 19:451-454 (1995)		
*57.	Wysocki, "Neurobehavioral Evidence for the Involvement of the Vomeronasal System in Mammalian Reproduction", <i>Neurosci Biobehav Rev</i> - 3:301-341 (1979)		
*58.	Wysocki et al., "Consequences of Removing the Vomeronasal Organ", <i>J. Steroid Biochem Molec Biol</i> - 39:661-669 (1991)		

EXAMINER:

DATE CONSIDERED:

EXAMINER: Initial if citation considered, whether or not the citation conforms with MPEP 609. Draw a line through the citation if not in conformance and not considered. Include a copy of this f rm with next communication to applicant.

*If an asterisk is placed beside the reference number, a copy is not provided because the reference was previously cited by or submitted to the PTO in a prior application that is identical in the statement and relied upon for an earlier filing date under 35 U.S.C. §120. 37 C.F.R. §1.98 (d).